Katherine Atcheson ([00:05](https://www.rev.com/transcript-editor/shared/1hrwNME4MB4EGZcByVC59oj4RF-ohMo99NHTgjGHJcyvTslsAL9Vum67rwH1M4yx9i5OdclZoybTdYV3ynygwA8DVS4?loadFrom=DocumentDeeplink&ts=5.04)):

Hello and welcome to Clinical Chats, a podcast for sexual and reproductive health professionals. Clinical chats, formerly known as The Family Planning Files, is a program from the Clinical Training Center for Sexual and Reproductive Health, or CTC-SRH, formerly known as the National Clinical Training Center for Family Planning or NCTCFP, and is funded by the Office of Population Affairs in order to enhance the knowledge of Title X clinicians and other staff. In today's podcast, the first of a multi episode series on the role of Title X clinicians and preventing pregnancy associated mortality. We'll be discussing the definition, most common causes, contributing factors and incidents of pregnancy associated deaths. Our guest today is Maeve Wallace PhD. Dr. Wallace is a reproductive and perinatal epidemiologist whose research focuses on social, structural, and policy determinants of maternal and child health and health inequities. Dr. Wallace is currently an associate professor at Tulane University School of Public Health and Tropical Medicine, and associate Director of the Mary Amelia Center for Women's Health Equity Research, also at Tulane University.

([01:21](https://www.rev.com/transcript-editor/shared/u8PgDss8qNn4azYLS1-GCeM3IZIoWwtydGzX51MqbNMP4KO-0FIZirU3vUSCkClwehAzOf1F4PH1fQgI2KIKWL2I8XM?loadFrom=DocumentDeeplink&ts=81.96)):

Welcome to the podcast, Dr. Wallace. We're so excited to speak with you today. So to begin, we know that the CDC defines pregnancy related death as any death that happens between the beginning of pregnancy and the end of the first year postpartum from a cause related to the pregnancy, or it's a management, but not from accidental or incidental causes. But can you define what constitutes a pregnancy associated death versus a pregnancy related death and why it's important to distinguish between those two definitions?

Dr. Maeve Wallace ([01:59](https://www.rev.com/transcript-editor/shared/tqBB3A6ufZOsgckDHHEYG01FaLo_3PesNywLl8cJ4RMTDArAbR94y0qABPEOl0O7S-_ZFUMZCy4Z-xNjsAL3pBU24i8?loadFrom=DocumentDeeplink&ts=119.4)):

Yes, sure. Well, first of all, thank you so much for having me on today. Delighted to be here. So as you said, a pregnancy related death is one that's due to causes related to the pregnancy or its management. So these are the primary obstetric causes of death. Things like hemorrhage, preeclampsia, hypertension, obstetric embolism, really clinical obstetric causes of death. And maternal mortality, very similar to pregnancy related mortality. The only difference between those two terms is that maternal mortality refers to death happening within 42 days from the end of a pregnancy. So the only difference there, again, these are all clinical obstetric causes of death, pregnancy related, extending out to one year postpartum while maternal mortality typically, the point there is 42 days from the end of pregnancy.

([02:47](https://www.rev.com/transcript-editor/shared/pa86yVAclMWrrgJ917l8bNN8LaHREYARvC2uuVH-jpQkyge9q94UNRPfll7QOEWt6H0_kQEZ9HLN_A7EXogITeSBzEc?loadFrom=DocumentDeeplink&ts=167.16)):

So then we have this other term pregnancy associated death, just to confuse things even further, but this is a sort of broader group of cases. So these are deaths of a person who is pregnant or up to one year from the end of pregnancy due to any cause. So pregnancy associated death includes all of those pregnancy related causes. So it might be an obstetric embolism or hypertension, but it also includes other things like suicide, homicide, car accidents, cancer, literally any other cause of death. And so they're overlapping and they're related, but it's really important that we have both of them because, for example, the CDC will report annual maternal mortality rates for our country. And these, again, are only counting those obstetric causes of death. But what we know from our work and other work is that some of those external causes, those violent deaths in particular, are happening with alarming frequency as well in this population. And so to be able to count those deaths and to be able to monitor really the true magnitude of loss of life that is happening among pregnant and postpartum people in this country, we use this concept of pregnancy associated death to sort of quantify the loss of life, and then also to monitor how well we're doing in preventing these deaths. So tracking how pregnancy associated mortality rates change over time.

Katherine Atcheson ([04:09](https://www.rev.com/transcript-editor/shared/nPBkNtnqUSR0ZZISlE1yEwwtFKi1v7OY8ZrYJgnEbMYWNY20aSxBiLuuFwCDOVtN_NKWAPPVrs4qRw2FZYxoM3N9rWY?loadFrom=DocumentDeeplink&ts=249.24)):

And that leads us really well into our next question. What are those top causes of pregnancy associated death in the US? You mentioned those incidental or violent causes.

Dr. Maeve Wallace ([04:21](https://www.rev.com/transcript-editor/shared/7zrpLd-VVem6oKUFr7qI6PQ5rMmD97maqQvVs9aZ3hBs_pCwNCnAxbJN8uPSqZNNnGQJfvgEeG21HVgyI3JwcoRABkA?loadFrom=DocumentDeeplink&ts=261.93)):

Yeah. So ranking causes of deaths, actually not as straightforward as it would seem. So it sort of depends on how we group causes, but our work and others have shown homicide in particular is consistently among the top causes of death in pregnant and postpartum people. In the most recently available data nationally, we found that pregnancy associated homicide and pregnancy associated suicide exceeded mortality due to any single cause of obstetric deaths. So a higher mortality rate from homicide or suicide than from hypertensive disorders or from hemorrhage. Of course, when you combine all of those obstetric causes of death into a maternal mortality rate or a pregnancy related mortality rate, that's going to be higher than a homicide or a suicide rate. So again, we're always asked to rank these causes, but it really depends on how they're grouped and how we want to look at them. That being said, I think the point that we've shown homicides, suicide, drug overdose, these are happening at rates often exceeding rates of the leading causes of clinical obstetric death sort of warrants more attention on them.

Katherine Atcheson ([05:26](https://www.rev.com/transcript-editor/shared/i9JqhEz6KpN-MnhvpzYhIQ3cTXOZp5wKETd85aR9surzLWHZ8zXg6SaX6clpb9eHg1dM523QWH98oGw4wYQwR435yOY?loadFrom=DocumentDeeplink&ts=326.7)):

This may also be sort of a bit difficult or a gray area to answer, but the current incidence rate in the US of those pregnancy associated deaths, those clauses, do we know how many of those happen each year approximately, and how many of those would be considered "preventable"?

Dr. Maeve Wallace ([05:49](https://www.rev.com/transcript-editor/shared/3tqmbe34Wt7Umf8QAGjqmL8VYH0YlpdcnBWgrh8RM0mk8Av3dLHTLlr57zlOYL__LqtBJZnRsxe0Pfnh4Rh8Nqj585A?loadFrom=DocumentDeeplink&ts=349.17)):

Sure. So most recent data that I've seen is the 2021 national mortality file. So there's always a bit of a lag in data, but this is, they're pretty consistent with what we've seen prior. So about 2,260 deaths that were pregnancies associated. So that's a death of a person who's pregnant or postpartum due to any cause. So we had over 2000 of those in that year. As you may know, the national maternal mortality rate was 33 deaths per 100,000 live births in 2021. And then we found in that same year, it was between 180 and 190 homicides. I don't remember the exact number, but a consistent rate that we've seen in the past few years is about five to five and a half deaths per 100,000 live births due to homicide. Suicide would've been similarly high around three deaths per 100,000 life births.

([06:39](https://www.rev.com/transcript-editor/shared/c-fgQawtZ04uGd6GN-VKsOQBqEIbJ-pnrVQE9fo0nHDss3qnJlaA2EOcg3Yh11das6-GiuZvFc-byuQrQlJK_-T16zI?loadFrom=DocumentDeeplink&ts=399.6)):

And so when we talk about preventability, this is sort of something that maternal mortality review committees decide upon after reviewing each case, was this something could have been done to prevent this case. So for those pregnancy related deaths, CDC aggregates all of the maternal mortality review findings and finds that about 80% were preventable. So again, the vast majority of these obstetric causes of deaths were preventable. And we talk about things like homicide and suicide, in my view, 100% preventable. Every homicide is a preventable death. There is no such thing as otherwise. And so that's sort of less of an issue when it comes to those violent causes.

Katherine Atcheson ([07:20](https://www.rev.com/transcript-editor/shared/dLaL295FpYXfVZnEaBSPCRJ4Yj0tnkUtGdDD_a71KLqg7kenDapxQSsWS7lPUMgEmNxqTwuLZ0nQDa4zFKmLfVa3BxI?loadFrom=DocumentDeeplink&ts=440.73)):

And you mentioned there's always been a little bit of a lag in the data, but have you and your colleagues seen how COVID may have affected these numbers at all? What sort of changes have you seen? And have we seen also any changes since things "opened back up" at the end of 2022?

Dr. Maeve Wallace ([07:44](https://www.rev.com/transcript-editor/shared/Y_kMoYa4qZKYnVsXrhN2IHSE8Ft3ooOZzP_b9CVCir8vZHUFMKjuRAoD3F2PIFJWW9tX4iS0Td-1YVu3cGUaVyIQsSQ?loadFrom=DocumentDeeplink&ts=464.64)):

Yeah. So what we saw in terms of maternal mortality, the CDC reported a sizable increase in maternal mortality that happened in 2021 compared to the four prior years of data that they had. So going back to 2018. And that, I think it's attributable to a lot of different reasons, as you sort of alluded to, the lack of availability of in-person healthcare, which is very important for prenatal care and postpartum care, as well as the sort of disruption in what we know to be root causes of maternal mortality. So economic inequality and lack of opportunity to have health insurance coverage via employment, and food insecurity and all of the sort of disruption to the social determinants of health. What I've seen attributed to the big increase in maternal mortality in 2021 as well is COVID itself. So in particular, that delta variant that was in circulation after the initial 2020 onset was particularly harmful for pregnant people. And so that, I think many deaths would've been attributed to the virus itself that year.

([08:48](https://www.rev.com/transcript-editor/shared/Z-tGIdts8u77oucX6tsCknsy6_RJksN3TUeC_YLGHguYWlzGo_UTNksPZ6JfBVXrpi2O_Zow2EUAHPca7QdgCAA09UU?loadFrom=DocumentDeeplink&ts=528.6)):

In terms of homicide, and I'll talk a lot specifically about homicide in terms of the pregnancy associated causes because that's where all of my work has been focused. But in homicide, we saw a big increase, right in 2020. And I think that that tracked along with the increase we saw in homicide of the general population in that year, just an increase in violence across the board. And also what we saw in terms of increase in severity of domestic violence or intimate partner violence because of the shelter-in-place orders because people were potentially isolated at home with an abuser. And so really risk of intimate partner violence related homicide of pregnant and postpartum people increasing right away in 2020. Unfortunately, it stayed elevated in 2021, and I've not seen the more recent data. I'm hopeful again, as you alluded to what's happened since we've opened back up and since things are sort of coming back online and available, is that we'll see a decline in these rates in the coming years.

Katherine Atcheson ([09:47](https://www.rev.com/transcript-editor/shared/RFxACmKOiWve_mceRJV14qeOSAMHqvbhBWxgA4oTkFMS6gFtKF3kGBHxpFr4Vai7umcO2rADX6Bc98EB_4DX0426GfE?loadFrom=DocumentDeeplink&ts=587.34)):

And do we see disparities in pregnancy associated deaths across perhaps racial and ethnic groups, age groups or other subpopulations? And what do those disparities look like?

Dr. Maeve Wallace ([10:01](https://www.rev.com/transcript-editor/shared/iGxj4rf1MIM3Hu6MO1rApVkPDHFV3486MaBqpYM1nxIm0sQjsOLxzBRQk2_jwJxqWNnO_0VsnPAN-mS5hMU2iJyO7ME?loadFrom=DocumentDeeplink&ts=601.8)):

Sure. So again, in terms of homicide, where I focus, we see broad racial inequities in terms of a disproportionate experience of death among black, indigenous and other people of color relative to white pregnant and postpartum people. This mirrors exactly what we see in terms of maternal mortality, pregnancy related mortality, the very similar racial inequity patterning. We also, in terms of homicides, see a really elevated rate in younger women in particular, and adolescent women especially. So this cuts across any race or ethnic identity. If you're a young adolescent woman, there's just higher homicide rates in that population relative to older pregnant and postpartum women. And so I think another key piece to highlight here is that we consistently find higher rates of homicide in the pregnant and postpartum population relative to homicide rates in just women of reproductive age who are not pregnant or postpartum. So the pregnancy itself being a really added stressor and added risk conferred on someone who might potentially experience fatal violence. And so that is especially true for adolescent women, that extra risk, they might experience an increase in severity of intimate partner violence has been shown to happen during pregnancy. And so that really a concern for younger pregnant women and girls.

Katherine Atcheson ([11:22](https://www.rev.com/transcript-editor/shared/IuWK2kMSoKJmpRLiCPaqfkuh4Y-m9u23dJ7WW7dUtcXYqmGRWI6FT5xzdOP3LPZLr7pCiW3nS80mtf13swTjuHv9S_c?loadFrom=DocumentDeeplink&ts=682.29)):

And as we all know, things, especially in public health, don't happen in a vacuum. How do issues that may crop up in pregnancy, so around mental health, substance use and misuse, you mentioned increase in intimate partner violence. How do those interact and compound each other and then contribute to the risk of a pregnancy associated death? Does experiencing one of these factors put a patient at risk of experiencing another, for instance?

Dr. Maeve Wallace ([11:57](https://www.rev.com/transcript-editor/shared/IZiW1zNnhmUpTY1R3FnK3B5dMEmqyoL2MJR2RgES6yG2JQtDe9xQDOReFLTes5cCOTHvJNaxuBJUjKVtfswpj9ltMMk?loadFrom=DocumentDeeplink&ts=717.27)):

Yeah. These conditions, as you said, they're very often co-occurring and they can compound the danger of a situation when it comes to a violent death in particular. I think it's not always, certainly not universally the case that one will confer or increase risk for another, or one is guaranteed to lead to the other, I should say. But certainly when we look at reviews of these cases, especially these violent cases, we find that there are multiple of these issues happening at once. Whether it's the victim who is a victim of intimate partner violence was experiencing that also had mental health issues. Or even in some of the pregnancy associated suicide cases, where we see those are also characterized by intimate partner violence. So it's not just homicide, but we see that in suicide. We see the substance use, again, not universally but happening in these cases in some of them from both the victim and the perpetrator or the decedent and their partner. More of, I think, of a situation than an individual level risk. It's the dynamic as well of what's going on in the home

Katherine Atcheson ([13:05](https://www.rev.com/transcript-editor/shared/6Ry5GNWfq8afLCN1GB1FAYlLc02ydTiSdXMLGdB8AWnKO70LYLdPDB_GdAUfsErsRdDu2mRZaCH7rNNtYpmDCatzDzA?loadFrom=DocumentDeeplink&ts=785.1)):

And moving a little bit back from say the individual patient, the individual household, how are social and structural factors in the US contributing to our current high rates of pregnancy associated death?

Dr. Maeve Wallace ([13:21](https://www.rev.com/transcript-editor/shared/R-2B1o9PGoZdMJzt8cwt1X5LEeJF0m3dKWs8RTtYjz0SefnxBTbd0ykYdtWlCDztWEfutNiKUodaZxH4uTfqclTVR68?loadFrom=DocumentDeeplink&ts=801.39)):

So yeah, this is sort of where I live as a social epidemiologist this far upstream, as we say in public health, to really look at how does really the social fabric of our society and the structure on which it's built and is continuing to function, shaping what we see in terms of trends in population health and in this population health and maternal mortality. So we know that the racial inequities that we see, both in terms of maternal mortality, obstetric clinical causes of death, as well as these pregnancy associated cases are due to structural factors and the context in which we live, which historically and ongoing is shaped by structural racism, sexism, economic inequality. All of these forces and their intersections that shape who has access to health promoting resources and opportunities, who is able to get a high quality education, obtain a well-paying job, live in safe housing, live in a safe neighborhood, have food on the table, all of these things that are really root causes of both maternal mortality and pregnancy associated mortality, things like homicide and suicide and violence, which the unequal access to these things is why we're seeing inequitable health outcomes.

([14:35](https://www.rev.com/transcript-editor/shared/a6XgB1G9MZLGmasbUi8uaL6iPJZTiIR1SpG1c0AapOZDdDxjn0AiSsHygy4AXyew-MUerYpnlMYShcx6I4359RAfyrQ?loadFrom=DocumentDeeplink&ts=875.1)):

And they're relevant before someone becomes pregnant, if they ever even become pregnant, during pregnancy, and then of course postpartum. And so it's always my goal to shed light on pregnancy associated mortality and these causes of death that are happening outside of a clinical setting. But also to really underscore the fact that if we can move far enough upstream and really focus on these structural factors, we can prevent both maternal or obstetric causes of death as well as violent deaths.

Katherine Atcheson ([15:05](https://www.rev.com/transcript-editor/shared/s1eqtIbuuUhsefsiuh5KQbvrVPZKos8kl1061SEoyDX8LySEjCpre3yKl5jkA9uyhqfvca4wrPeDwB4MJnbYw0XXxHw?loadFrom=DocumentDeeplink&ts=905.01)):

Sort of moving away from the social, but also into the clinic because most of our listeners are Title X clinicians and other staff. Title X itself doesn't provide that obstetric care, but it sees patients who may be trying to get pregnant, who are at risk of an unplanned pregnancy, and also patients who may be postpartum, maybe even just a few weeks postpartum. What would be the role of clinicians who see patients in those contacts to really address pregnancy associated death, especially things like screening for those factors or anything like that?

Dr. Maeve Wallace ([15:46](https://www.rev.com/transcript-editor/shared/19HifrVWTnHCiTB7b6p_YnDQnlxmpW3iGAQZi3VqShKftOSLO6UZ2s5VUiUB3W1eCIFKfcgx69DkQnw3f7s1dF9tZXc?loadFrom=DocumentDeeplink&ts=946.41)):

Yeah. So about half of these pregnancy associated deaths are happening postpartum. So there's an opportunity right there, and a really critical role for anyone who would be encountering a postpartum woman, not necessarily an obstetric provider, could even be a pediatrician. Anybody who's coming in contact with the postpartum person, that's an opportunity to check in to do those screenings on, especially mental health, given what we know around postpartum depression and the elevated risks of that after birth, as well as screening for violence and screening for substance use and all of these other things. I think it's just as important to do that even before someone is pregnant, just as a provider to someone who could potentially become pregnant. And with this knowledge that we have around how pregnancy itself confers risk for increased severity of violence, heightened potential mental health crises, substance use. So with the knowledge that you might be seeing someone who you know will someday become pregnant, but have the opportunity to identify and sort of refer them to the services that they need. Identify the crises that they're having, the situations that they have at home, whether they're in a violent situation, with the knowledge that someday if and when they should become pregnant, those risks can really be heightened.

([17:06](https://www.rev.com/transcript-editor/shared/H6e9hmt2dqd5YcbvUT2EyYxzjrYh8Jsz3vQjWv0aQVO_f6TVSzuaX7s-_0IgNnMeMXcEbNQqOsJ3XqcsxWQHKbucth4?loadFrom=DocumentDeeplink&ts=1026.15)):

For people who provide prenatal care, obstetric providers or midwives, I always underscore the fact that this might be the only time a person is in contact with services or with healthcare if they are not seeing providers before pregnancy. And so that's an even more tight and critical window to identify what crises they might be experiencing and get them to services in where they otherwise might not be in healthcare connections at all, except for the fact that they're pregnant.

Katherine Atcheson ([17:34](https://www.rev.com/transcript-editor/shared/8sNqpYXu3ptOeOhegbP3W43KMX-GLenRG-T_1OpKEh52SLJve5MeqaVE8LufRku7Y_hQ6ct8du9rHBqnL8bToYQDbl8?loadFrom=DocumentDeeplink&ts=1054.38)):

So we've had a really fantastic conversation here giving kind of an overview of the problem of pregnancy associated death in the US, but it is just a taster. Where could clinicians or other Title X staff or anyone who listens to our podcast go to learn more about the new research and trends that you and your colleagues are doing related to pregnancy associated death in the US?

Dr. Maeve Wallace ([18:03](https://www.rev.com/transcript-editor/shared/Vy4S_Xa6gXhqiXDuVuf2eN8X4QdqtZZ7rHjJ_vWq3y56BxJIgillTfYGwAIXfjj1tPsNGMjsVe3lQk6IeilFU_V-MVI?loadFrom=DocumentDeeplink&ts=1083.21)):

Yeah. So definitely always recommend the CDC for your official counts and reporting of the pregnancy related and maternal mortality. They have been shedding more light recently on some of these pregnancy associated deaths, but a lot of that work remains in the scientific literature. So all of our publications are available on PubMed. They're publicly available because they are federally funded, and so you can access them there online. We also have our Mary Amelia Center website, which is womenshealth.tulane.edu, where we post all of our work.

Katherine Atcheson ([18:38](https://www.rev.com/transcript-editor/shared/MEQ0tEHe0KXwHY1vOiH8xRaxj0UeJi4SVQqy1nYXIWJPLOmFPZ77_bKndlkMx1fmdHJPIwRRO1LD_6GXrCitcbOGV-0?loadFrom=DocumentDeeplink&ts=1118.22)):

And before we say goodbye today, Dr. Wallace, if you could just give one top takeaway to our listeners as they return to their practice about addressing pregnancy associated death in the US, what would that be?

Dr. Maeve Wallace ([18:53](https://www.rev.com/transcript-editor/shared/oF7xIglzchs5SUgh1QdOi_wACCniaHP3YiWM-C9KB-2fPlKexbWJzsi3BEkYfrylkWIK3XB_gLa3Z-w9YZUpRX9at6o?loadFrom=DocumentDeeplink&ts=1133.28)):

It would just be my encouragement of them to think even beyond their clinical expertise to understand and to potentially intervene on the whole person in front of them, whether that's the violence that they might be experiencing at home or the mental health crisis that they're dealing with, and sort of keeping all of that in mind as they're treating someone or trying to connect to someone to identify what needs that they have. Because clinicians are in such a powerful position to make contact and to make connection with someone who might not otherwise have a connection outside of their own home. And so just to really use that power to help in whatever way that they can.

Katherine Atcheson ([19:33](https://www.rev.com/transcript-editor/shared/2OjPKPxdL4LGV17fPXV8sdROvdkuhO-vzAy1AtO9IycTOPaAayodaRXdxCHpX4emKZ8WNdjc5jYBPlUACE9_L-EuI3E?loadFrom=DocumentDeeplink&ts=1173.36)):

Well, thank you so much for joining us today, Dr. Wallace, and for sharing your time and expertise. For previous podcast episodes, search for Clinical Chats or subscribe to our show on iTunes, Google Podcasts, Spotify, or wherever you listen to podcasts. For transcript of this podcast as well as other online learning activities and continuing education opportunities, please visit our website at ctcsrh.org. While you're there, you can sign up to receive our newsletter, Clinical Connections, at the top of the page. You can also follow the Clinical Training Center for Sexual Reproductive Health on Twitter at CTC-SRH, all lowercase, and on LinkedIn. The CTC-SRH is funded by the Office of Population Affairs to provide continuing education, training, and technical assistance to Title X grantees, sub recipients and Service sites. And it is supported by DHHS grant number 5FPTPA 006031-03-00. This podcast is intended for informational purposes only and does not constitute legal or medical advice or endorsement of specific products.

([20:52](https://www.rev.com/transcript-editor/shared/4P8kkrArAEUeMXoIP5qcUjf_Hxq_a1qNbGQnxTJzeoGoNKlJJxjdu0Ndz4jky8Cp7Fg7XCJGyKYSpOCpPOdWf3bzOaI?loadFrom=DocumentDeeplink&ts=1252.23)):

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